

IN THE CLAIMS

Presented below are all of the pending claims in a clean, un-marked format. Claims that have not been amended are included with the notation "Unamended".

- B1*
1. (Once amended) An apparatus, comprising:

a metal-oxide-semiconductor transistor with a shifted during manufacture flat band magnitude;

a metallic gate electrode coupled to said metal-oxide-semiconductor transistor and to a positive voltage source; and

a metallic source electrode, a metallic drain electrode, and a substrate electrode of said metal-oxide-semiconductor transistor coupled to each other and to a negative voltage source.

- B2*
2. (Twice amended) The apparatus of claim 1, wherein said metal-oxide-semiconductor

includes a diffused gate region material with a work function less than - 0.56 volts.

3. (Twice amended) The apparatus of claim 2, wherein said diffused gate region material is platinum silicate.

4. (Twice amended) The apparatus of claim 2, wherein said diffused gate region material is selected from the group consisting of tantalum nitrate, iridium, nickel, and arsenic.

5. (Unamended) The apparatus of claim 1, wherein said metal-oxide-semiconductor transistor includes a heavily-doped substrate area.

6. (Unamended) The apparatus of claim 1, wherein said metal-oxide-semiconductor transistor is a p-channel device.

7. (Unamended) The apparatus of claim 1, wherein said metal-oxide-transistor is an n-channel device.

B3
15. (Once amended) An apparatus, comprising:

means for shifting a flat band magnitude in a metal-oxide-semiconductor transistor;

means for coupling a metallic gate electrode of said metal-oxide-semiconductor transistor to a positive voltage source; and

means for coupling a metallic source electrode, a metallic drain electrode, and a substrate electrode of said metal-oxide-semiconductor transistor to a negative voltage source.

B4
16. (Twice amended) The apparatus of claim 15, wherein said means for shifting includes a diffused gate region with a material whose work function is less than - 0.56 volts.

17. (Unamended) The apparatus of claim 16, wherein said material is platinum silicate.

18. (Unamended) The apparatus of claim 16, wherein said material is selected from the group consisting of tantalum nitrate, iridium, nickel, and arsenic.
19. (Unamended) The apparatus of claim 15, wherein said means for shifting includes a substrate which is heavily-doped.
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20. (New) An apparatus, comprising:
- a metallic gate electrode to couple to a positive power supply voltage;
- a diffused gate region with a material whose work function is less than minus 0.56 volts;
- a gate insulator area;
- a channel area coupled to said gate insulator area; ✓
- a diffused drain area coupled to said channel area; and
- a diffused source area coupled to said channel area.
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21. (New) The apparatus of claim 20, wherein said material is platinum silicate.
22. (New) The apparatus of claim 20, wherein said material is selected from the group consisting of tantalum nitrate, iridium, nickel, and arsenic.
23. (New) The apparatus of claim 20, further comprising a substrate which is heavily-doped.